

# Expected Births to HBsAg-positive Women & Case Identification

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## How are the expected births calculated?

- Natality data provided by National Center for Health Statistics (state birth data)
  - These data are broken into six ethnic categories (White non-Hispanic, Black non-Hispanic, American Indian, API US-born, API foreign-born, and Hispanic)
- HBsAg prevalence estimates derived from the 1994 NHANES III and medical literature review
- Both a point estimate and a lower limit are calculated for each grantee

# What are the HBsAg prevalence rates for the point estimates?

The following prevalence rates are currently used:

- White non-Hispanic: 0.0011
- Black non-Hispanic: 0.005
- American Indian: 0.005
- API US-born: 0.014
- API Foreign-born: 0.089
- Hispanic: 0.0009

# What are the HBsAg prevalence rates for the lower limits?

The following prevalence rates are currently used:

- White non-Hispanic: 0.00026
- Black non-Hispanic: 0.0026
- American Indian: 0.0022
- API US-born: 0.0078
- API Foreign-born: 0.075
- Hispanic: 0.00013

## Point Estimate Example

- For each grantee, births in a given ethnic group are multiplied by the expected prevalence rate to calculate the estimate:
  - State X's births to API-US born mothers: 362
  - Pt Estimate prevalence rate for API-US born: 0.014
  - Point Estimate is  $362 \times 0.014 = \underline{5}$  births to API-US born mother

# 2004 Perinatal Hepatitis B Point Estimates

- National Point Estimate: 23,919

API-foreign born: 70.1%

Black non-Hispanic: 12.5%

White non-Hispanic: 10.6%

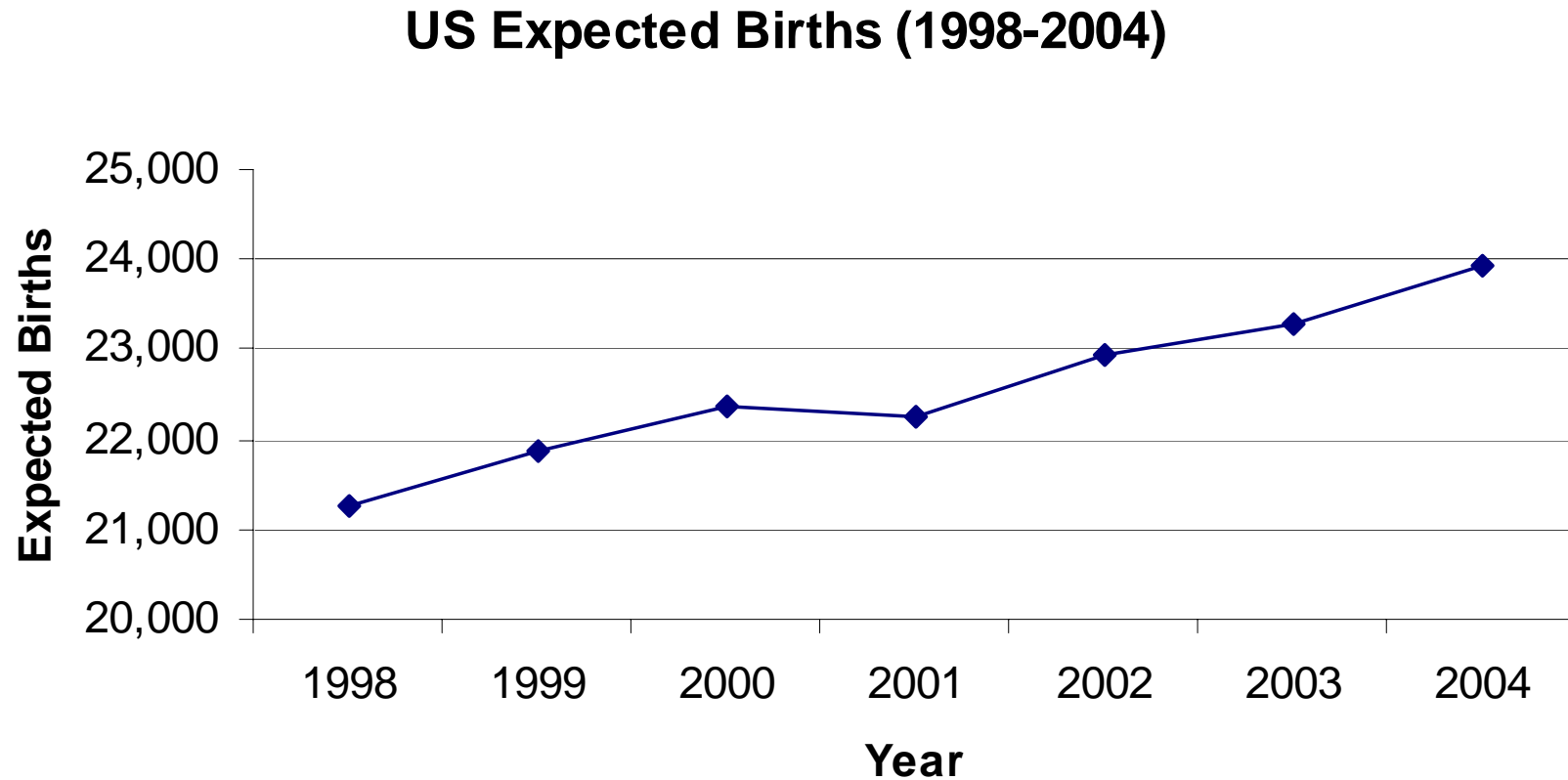
Hispanic: 3.6%

API-US born: 2.3%

American Indian: 0.9%



# Perinatal Hepatitis B Point Estimate Trends



## What are the limitations of these estimates?

- Prevalence rates are based on 1994 NHANES data & literature review
- Local variations in Asian foreign-born populations exist (this population makes up the majority of the point estimates)



# What are the limitations of these estimates? (cont'd)

- Only API foreign-born are factored in, not mothers from other countries (Africa, Eastern Europe...)
- In 2004, 24% of all births in the US were to foreign born mothers and only about 5% of all births were to API foreign-born moms\*

\*NCHS 2004 Birth Data



# How does CDC plan to improve these estimates?

- Updated NHANES data (1999-2004) on HBsAg prevalence will be available soon
- 2004 birth data on mothers' country of origin may be available soon for select states (CA, FL, ID, KY, MA, MI, MO, NH, NY [not NYC], OH, PA, SC, TN, TX, WA) to calculate more precise estimates

## How can state/local areas improve their estimates?

- Conduct a review of HBsAg results for a particular ethnicity, such as Native American, to come up with better state/local estimates
- Check with your state's vital statistics department to see if data on births to foreign-born mothers is available by country of origin

# How can state/local areas find additional cases?

- Educate prenatal care providers to screen EVERY pregnant woman for HBsAg status & report HBsAg-positive pregnant women
- Work with birthing hospitals to ensure all women who show up for delivery have been/are screened and that HBsAg-positive pregnant women are reported to the health department (some programs use a one-page hospital fax form)

## How can state/local areas find additional cases?

- Review HBsAg-positive reports from a universal reporting mechanism (newborn screening cards or electronic birth certificate)
- Create an automated cross-reference on women known to be HBsAg-positive (chronic registry) with state birth data to find missed cases

# Perinatal Hepatitis B Case Reconciliation

- In the 2005 Annual Perinatal Hepatitis B Program Assessment you were asked to provide NNDSS case identification numbers for any HBsAg-infected infants that you reported to CDC from your 2005 cohort
- These data are being validated this year with 2006 NNDSS perinatal hepatitis B infections



## Perinatal Hepatitis B Case Reconciliation (cont'd)

- For those programs with one or more perinatal hepatitis B infections in 2005, you will receive a call or email from Dana Roque sometime in the next month to gather additional information on these cases to ensure that all perinatal hepatitis B infections have been reported to NNDSS for calendar year 2006

